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Serial No. 176

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
E. LESTER JONES, DIRECTOR

CATALOGUE
OF
CHARTS, COAST PILOTS, AND
TIDE TABLES
OF THE
PHILIPPINE ISLANDS

PUBLISHED BY THE U. S. COAST AND GEODETIC SURVEY

DECEMBER 1, 1921



WASHINGTON
GOVERNMENT PRINTING OFFICE
1921



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EXPLANATION OF DATES ON U. S. COAST AND GEODETIC SURVEY CHARTS.

All U. S. Coast and Geodetic Survey charts bear below the border line a note indicating the date on which they were issued from the office in Washington, D. C. The form of this note is—

LIGHTS, BEACONS, BUOYS, AND DANGERS CORRECTED
FOR INFORMATION RECEIVED TO DATE OF ISSUE (date).

It should be understood that no additional information relative to lights, beacons, buoys, and dangers which could be charted had been received previous to this date. It is therefore unnecessary for a mariner to examine his file of Notice to Mariners of date prior to the date of issue of the chart for such corrections.

Other dates which appear on these charts are of less importance to mariners, but are necessary for the identification of the edition and print of the chart, and should be understood by those who use the chart.

A note, known as the authority note, gives the dates (years) of the surveys from which the chart was constructed. This note reads as follows:

AUTHORITIES:

SURVEYS (date).

The surveys are by the U. S. Coast and Geodetic Survey unless otherwise stated.

When a new chart is issued, the date (month and year) is printed in the publication note.

PUBLISHED AT WASHINGTON, D. C. (date),
BY THE U. S. COAST AND GEODETIC SURVEY
E. LESTER JONES, *Director.*

This note is always placed just below the border of the chart and as near a central position as possible. The date in this note remains unchanged until an extensive correction is made on the plate from which the chart is printed. The date is then changed and the issue known as a new edition.

When a correction, not of sufficient importance to require a new edition, is made to a chart plate, the year, month, and day are noted below the border in the left-hand corner of the chart, thus: 20-6/30, 7/22, 21-2/3, 5/27.

EXPLANATORY NOTES.

The charts embraced in this catalogue are constructed on different scales in order to adapt them to the different conditions of navigation. The small-scale charts include large areas and are suited to offshore navigation, while those on large scale include small areas and are suited to alongshore navigation.

They are classified as follows:

SAILING CHART. Scale, 1 : 1,600,000.

It is intended for the use of the navigator to fix his position as he approaches the coast from the open ocean or when sailing between distant coast ports. It shows the offshore soundings, the principal lights and outer buoys and such natural landmarks as may be visible at a considerable distance.

GENERAL CHARTS OF THE COAST.—Scales from 1 : 400,000 to 1 : 800,000. They are intended for coastwise navigation when the vessel's course would mostly be within sight of land, with her position fixed by landmarks, lights, outer buoys, and characteristic soundings.

COAST CHARTS.—Scales from 1 : 100,000 to 1 : 200,000. They are intended for close coastwise navigation when a vessel's course would carry her inside outlying reefs and shoals; also for entering bays and harbors of considerable width and for navigating the large inland waterways.

HARBOR CHARTS.—Scales from 1 : 5,000 to 1 : 80,000. They are intended for navigation of harbors and small waterways.

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CHARTS, COAST PILOTS, TIDE TABLES, AND NOTICE TO MARINERS RELATING TO THE PHILIPPINE ISLANDS PUBLISHED BY THE U. S. COAST AND GEODETIC SURVEY.

The charts are arranged in this catalogue in numerical order and the limits of the charts are graphically shown on diagrams on adjoining pages.

Agencies for the sale of the charts, coast pilots, and tide tables of the U. S. Coast and Geodetic Survey.

Philippine Islands:

Cebu—Pacific Commercial Co.

Iloilo—Hoskyn & Co.

Manila—Luzon Stevedoring Co., Water front foot of Calle Madrid.

U. S. Coast and Geodetic Survey Field Station, Intendencia Building.

Zamboanga—Ohta Development Co.

Hawaii:

Honolulu—Hawaiian News Co.

COAST PILOTS.

Philippine Islands, Part 1.—Luzon, Mindoro, and Visayas, 8vo, canvas, 1919. Price, 75 cents.

Philippine Islands, Part 2.—Palawan, Mindanao, and Sulu Archipelago, 8vo, canvas 1921. Price, 75 cents.

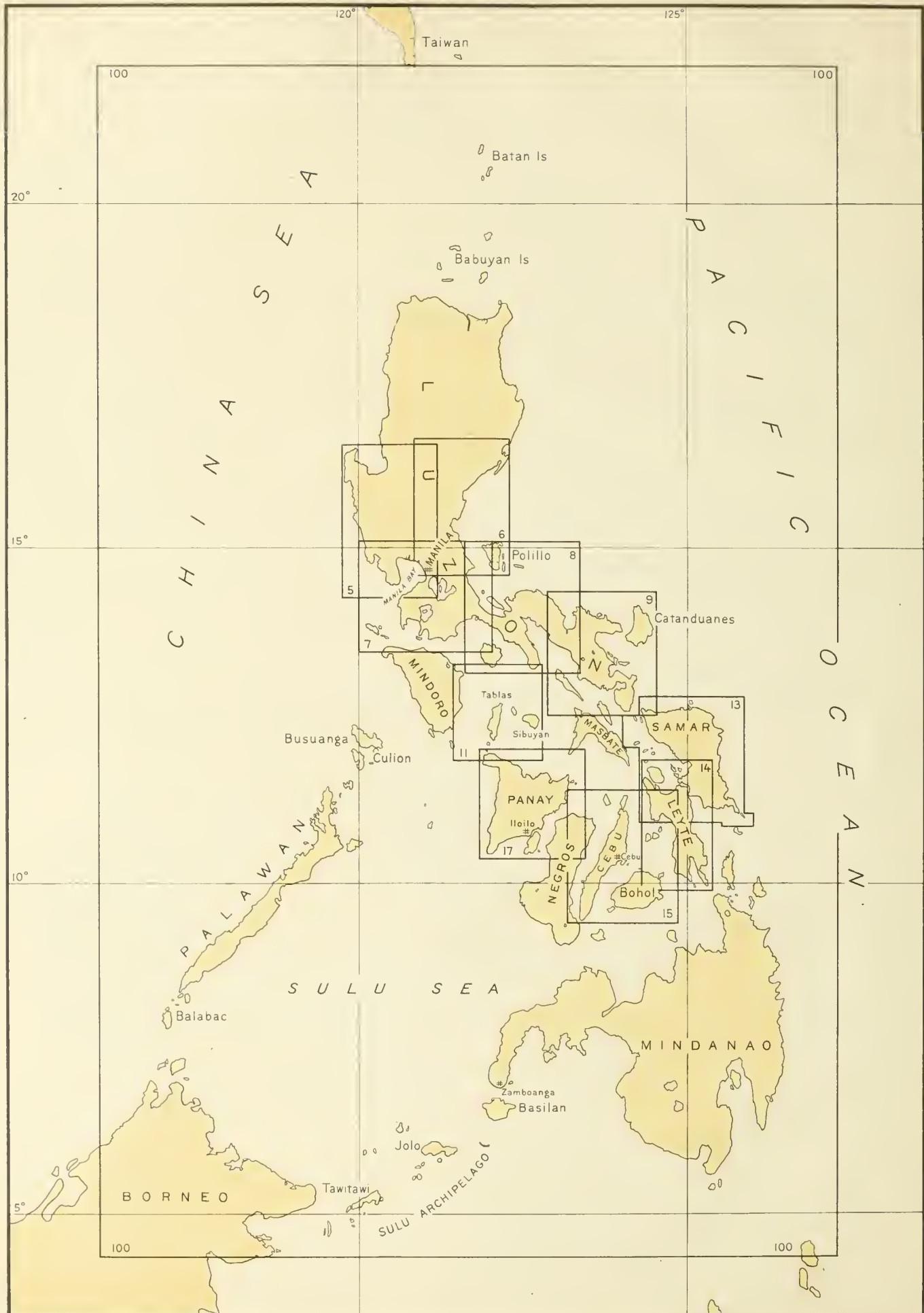
TIDE TABLES.

{Published annually six months in advance.}

	Price.
United States and Foreign Ports (including data on currents).....	\$0.75
Pacific Coast Tide Tables for western North America, eastern Asia, and many island groups.....	.15

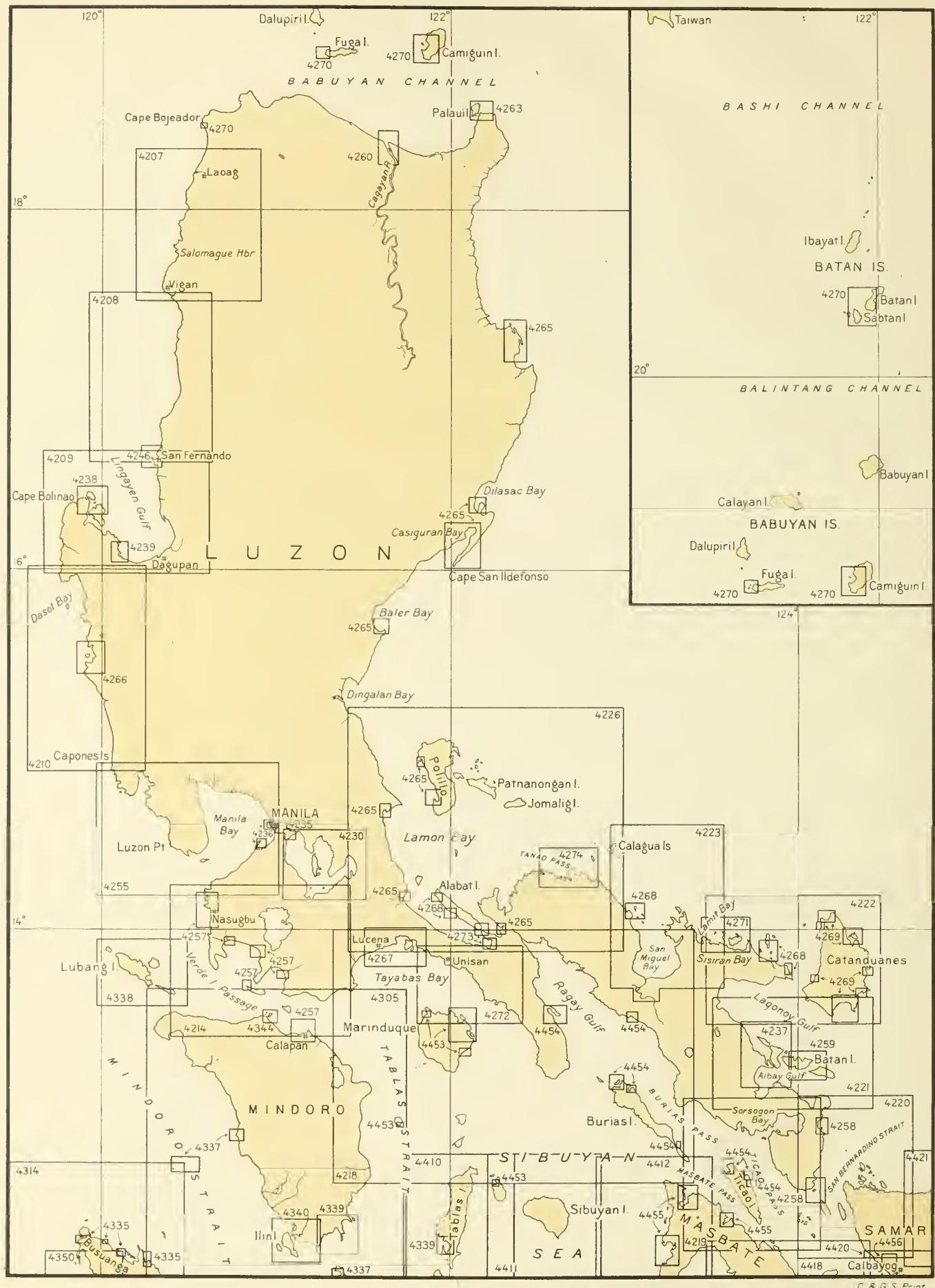
NOTICE TO MARINERS.

Corrections to be applied to charts to keep them up to date and the announcement of new charts, new editions of charts, and new publications of the Philippine Islands are included in the Notice to Mariners, published by the U. S. Coast and Geodetic Survey Field Station, Manila, P. I.



TOPOGRAPHIC MAPS OF THE PHILIPPINE ISLANDS.

Cat. No.	TITLE.	Scale.	Size.	Date.	Price.	Cat. No.	TITLE.	Scale.	Size.	Date.	Price.
5	Central Luzon.....	1:200,000	<i>Inches.</i> 32×50	1912	\$0.50	13	Samar and adjacent islands...	1:200,000	<i>Inches.</i> 36×40	1920	\$0.75
6	Central Luzon—eastern sheet.	1:200,000	31×45	1919	.75	14	Leyte.....	1:200,000	24×44	1914	.50
7	Southern Luzon.....	1:200,000	36×44	1913	.50	15	Cebu and Bohol.....	1:200,000	38×44	1915	.75
8	Southern Luzon—central sheet	1:200,000	39×44	1916	.75	17	Panay.....	1:200,000	35×38	1912	.50
9	Southern Luzon—southern sheet.....	1:200,000	36×41	1920	.75	100	Philippine Islands (in four sheets).....	1:1,000,000	50×78	1918	2.00
11	Islands of Tablas, Romblon, and Sibuyan.....	1:200,000	30×32	1913	.50						



CHARTS OF THE PHILIPPINE ISLANDS.

[Numerical arrangement.]

Cat. No.	TITLE.	Scale.	Size of border (inches).	Date of last edition.	Price.	Cat. No.	TITLE.	Scale.	Size of border (inches).	Date of last edition.	Price.		
COAST AND HARBOR CHARTS.													
4200	Philippine Islands (see p. 15 for diagram).	1:1,600,000	33×49	1918	.75	4258	Matnog Bay and Tiolin Strait, Luzon, I.	1:30,000	18×26	1916	.25		
4207	Laoag to Vigan, Luzon, I.... Port Currimao and Gan Bay..... Salomague Harbor and Lapog Bay.....	1:100,000 1:20,000 1:20,000	31×41	1906..........	.75	4259	Port Gabat; Luzon, I.... Rapurapu Strait and Calanaga Bay; Batan and Rapurapu, Is.....	1:20,000		1906	.50	
4208	Solvee Cove to San Fernando; Luzon, I.... Solvee Cove..... San Esteban and Nalvo Bay..... Santiago Cove..... Darigayos Inlet.....	1:100,000 1:10,000 1:20,000 1:10,000 1:10,000	31×42	1906....................	.75	4260 4263 4265	Aparri Anchorage and part of Cagayan River; Luzon, I.... Port San Vicente and vicinity; Luzon, I..... Harbors on east coast of Luzon; Luzon, I.....	1:30,000 1:25,000 1:20,000	23×31 20×33 25×35	1915 1916 1909	.25 .25 .50	
4209	Lingayen Gulf; Luzon, I.... Dagupan.....	1:100,000 1:20,000	31×42	1912.....	.75	4266	Port Dimalansan and Port Bicobian..... West Dilasac Bay..... Casiguran Bay..... Baler Bay.....	1:60,000 1:50,000 1:80,000 1:50,000	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....
4210	Capones Islands to Dasol Bay; Luzon, I.... <td>1:125,000</td> <td>24×41</td> <td>1915</td> <td>.75</td> <td>4267</td> <td>Hook Bay..... Polillo Harbor..... Port Lampon..... Mauban Anchorage..... Port Apat.....</td> <td>1:20,000 1:30,000 1:20,000 1:20,000 1:20,000</td> <td>.....</td> <td>.....</td> <td>.....</td>	1:125,000	24×41	1915	.75	4267	Hook Bay..... Polillo Harbor..... Port Lampon..... Mauban Anchorage..... Port Apat.....	1:20,000 1:30,000 1:20,000 1:20,000 1:20,000		
4214	Verde Island Passage.....	1:125,000	31×37	1915	.75	4268	Ports Masinloc and Matalvi and Palatig Bay, Luzon, I....	1:25,000	29×32	1907	.50		
4218	Ragay Gulf to Tayabas Bay; Luzon, I.....	1:200,000	32×45	1920	.75	4269	Lueena Anchorage, Pagbilao Bay and Port Laguimanoc; Luzon, I.....	1:40,000	25×35	1907	.50		
4219	Passages between Luzon and Masbate and Sorsogon Bay.....	1:100,000	35×39	1919	.75	4270	Harbors from Alabat to Pitogo Bay..... Port Alabat, southwest coast; Alabat, I..... Sanguiñ Bay, northwest coast; Alabat, I..... Tabon Anchorage, east coast; Luzon, I..... Canimo Pass and Mercedes, east coast; Luzon, I..... Pitogo Bay, east coast; Luzon, I.....	1:20,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....
4220	San Bernardino Strait; Luzon and Samar, Is..... <td>1:100,000</td> <td>30×41</td> <td>1917</td> <td>.75</td> <td>4271</td> <td>Harbors of Catanduanes..... Cabugao Bay, south coast..... Bagamanoc and Anajao, east coast..... Cobo Bay, west coast..... Port Manainbrag, west coast..... Pandan Bay, north coast..... Jimoto Bay, east coast..... Kalapadan Bay, east coast.....</td> <td>1:20,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000</td> <td>24×27 1:50,000 1:30,000 1:20,000 1:20,000 1:30,000 1:20,000 1:30,000</td> <td>1909</td> <td>.....</td> <td>.....</td>	1:100,000	30×41	1917	.75	4271	Harbors of Catanduanes..... Cabugao Bay, south coast..... Bagamanoc and Anajao, east coast..... Cobo Bay, west coast..... Port Manainbrag, west coast..... Pandan Bay, north coast..... Jimoto Bay, east coast..... Kalapadan Bay, east coast.....	1:20,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000	24×27 1:50,000 1:30,000 1:20,000 1:20,000 1:30,000 1:20,000 1:30,000	1909	
4221	Biri Anchorage..... <td>1:100,000</td> <td>28×40</td> <td>1914</td> <td>.75</td> <td>4272</td> <td>Harbors of Batan and Babuyan Islands and northern Luzon.....</td> <td>1:40,000</td> <td>23×24</td> <td>1908</td> <td>.25</td>	1:100,000	28×40	1914	.75	4272	Harbors of Batan and Babuyan Islands and northern Luzon.....	1:40,000	23×24	1908	.25		
4222	Albay Gulf and part of Lagonoy Gulf; Luzon, I.....	1:100,000	28×40	1914	.75	4273	Part of Batan Islands, including Baseo and Ibaña..... Port San Pio Quinto; Camiguin, I..... Musa Bay; Babuyan, I..... Dirique Inlet; Luzon, I.....	1:60,000 1:40,000 1:30,000 1:20,000	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....
4223	Albay Gulf and part of Lagonoy Gulf; Luzon, I.....	1:100,000	28×40	1914	.75	4274	Mariveles Harbor..... Anchorages, vicinity of Verde Island Passage..... Nasugbu and Jambolo Cove; Luzon, I..... Balayan; Luzon, I..... Taal and Lemery; Luzon, I..... Batangas; Luzon, I..... Port Maricaban; Maricaban, I..... Calapan; Mindoro, I.....	1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000	4271 4272 4273 4274	1:30,000 1:30,000 1:30,000 1:30,000 1:30,000 1:30,000 1:30,000 1:30,000	1909	.75
4226	Lamon Bay and Polillo Island.....	1:200,000	31×35	1921	.75	4275	Unisan to Mulanay and northern part of Marinduque; Luzon and Marinduque, Is.....	1:70,000	28×38	1910	.75		
4229	Laguna De Bay..... <td>1:100,000</td> <td>29×34</td> <td>1921</td> <td>.75</td> <td>4276</td> <td>Silangan Pass and Hondagua Harbor, Luzon, I.....</td> <td>1:20,000</td> <td>17×32</td> <td>1913</td> <td>.25</td>	1:100,000	29×34	1921	.75	4276	Silangan Pass and Hondagua Harbor, Luzon, I.....	1:20,000	17×32	1913	.25		
4235	Pasig River; Luzon, I.....	1:10,000	26×42	1913	.75	4277	Tanao Pass, Luzon, I.....	1:40,000	21×36	1921	.50		
4233	Manila and Cayite Harbors; Luzon, I..... <td>.....</td> <td>21×35</td> <td>1921</td> <td>.50</td> <td>4278</td> <td>4305 to 4350 (see p. 9). 4410 to 4456 (see p. 11).</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td>	21×35	1921	.50	4278	4305 to 4350 (see p. 9). 4410 to 4456 (see p. 11).		
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4238	Bolinao Harbor and approaches; Luzon, I.....	1:20,000	35×36	1911	.75	4280		
4239	Port Sual to Comas Island; Luzon, I.....	1:15,000	23×38	1904	.50	4281		
4246	San Fernando Harbor; Luzon, I.....	1:15,000	25×28	1906	.50	4282	.....	.....	.....	.....	.....
4255	Manila Bay and Coast of Luzon to Capones Islands; Luzon, I..... <td>1:125,000</td> <td>27×37</td> <td>1920</td> <td>.75</td> <td>4283</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td>	1:125,000	27×37	1920	.75	4283		
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	Nasugbu and Jambolo Cove; Luzon, I.....	1:50,000	4286		
	Balayan; Luzon, I.....	1:10,000	4287		
	Taal and Lemery; Luzon, I.....	1:10,000	4288		
	Batangas; Luzon, I.....	1:15,000	.....	.....	4289	.....	.....	.....	.....	.....	.....
	Port Maricaban; Maricaban, I.....	1:10,000	4290		
	Calapan; Mindoro, I.....	1:40,000	4291		

C H I N A S E A

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P A L A W A N P A S S A G E

10°

S U L U S E A

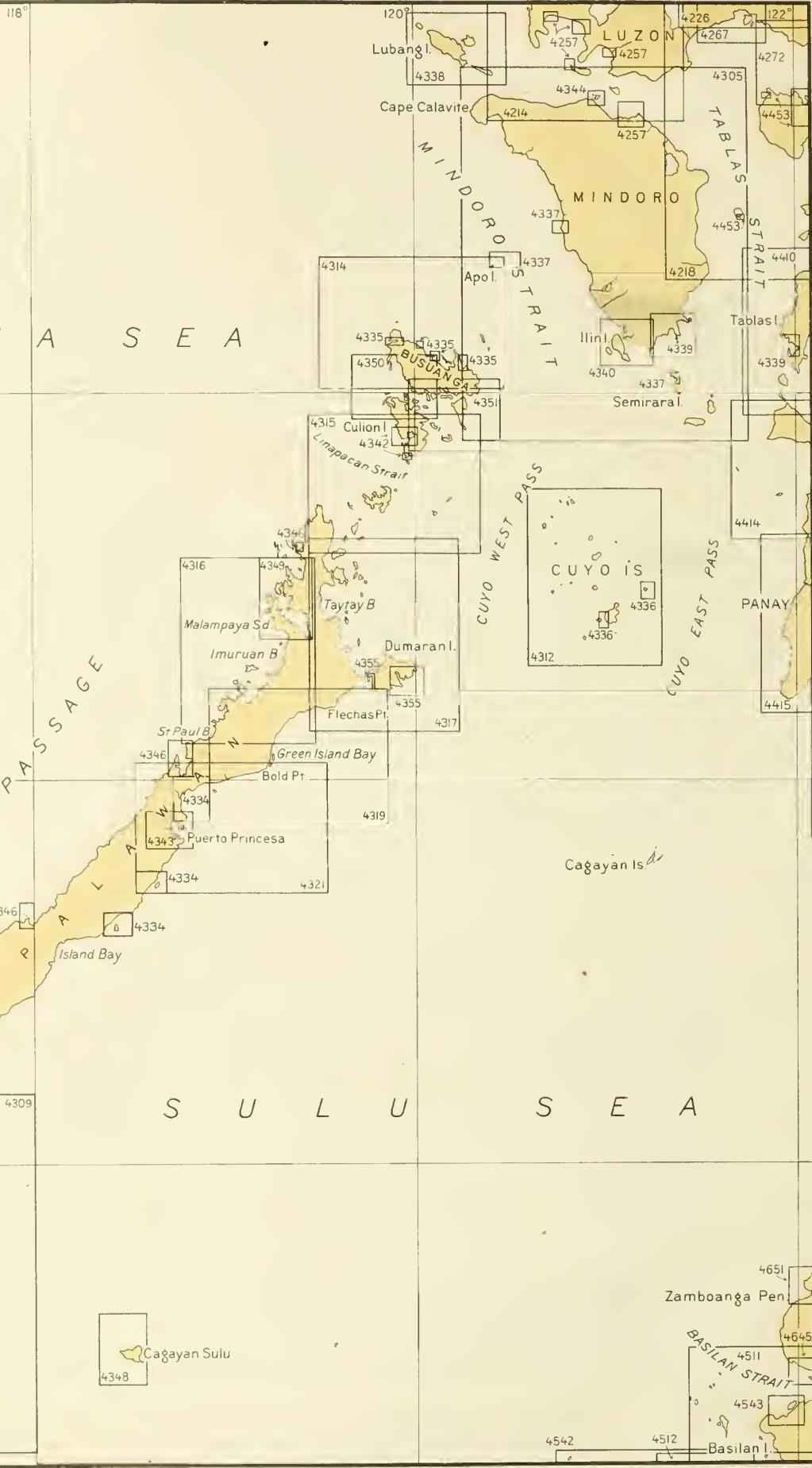
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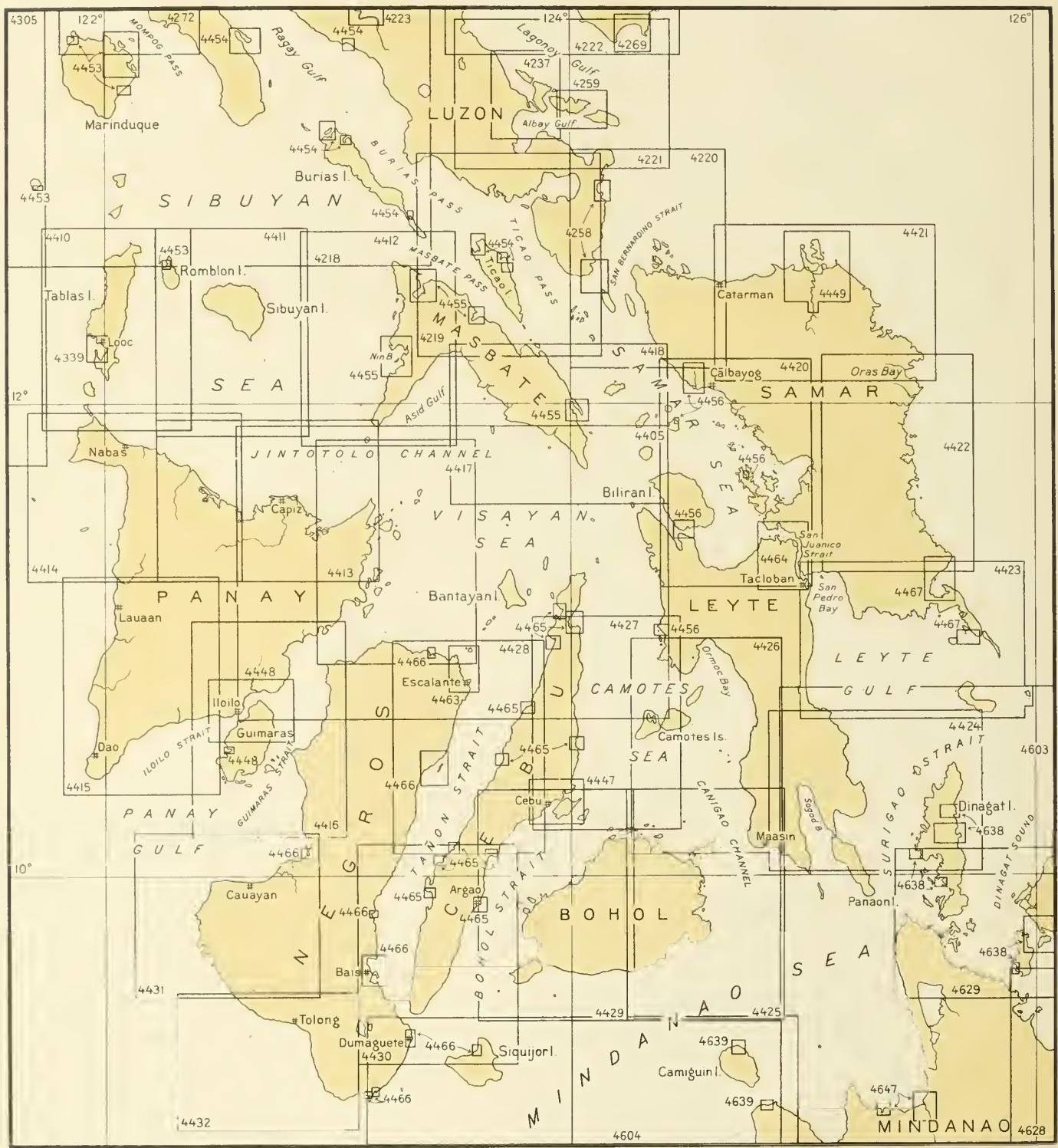
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CHARTS OF THE PHILIPPINE ISLANDS—CONTINUED.

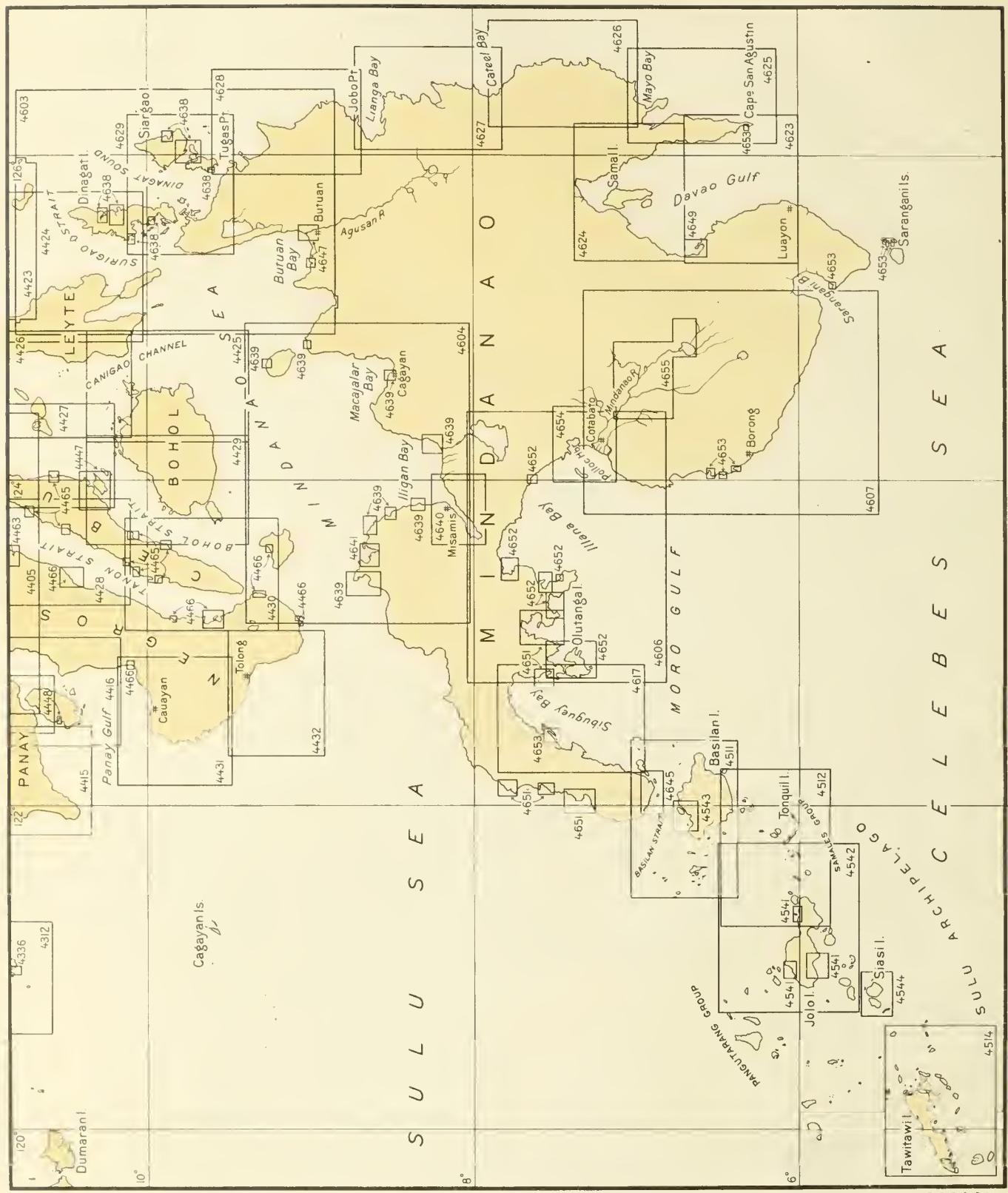
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COAST AND HARBOR CHARTS—Continued.											
4214 to 4272 (see p. 7).											
4305	Mindoro and vicinity.....	1:200,000	33×43	1919	.75	4339	Anchorage southeastern Mindoro and Tablas Island.....	25×37	1912	\$0.50	
4309	Balabac Strait.....	1:200,000	31×42	1921	.75		Looc Bay; Tablas, I.....	1:40,000			
4312	Cuyo Islands.....	1:100,000	31×41	1918	.75		Lagara Cove and Passes southward; Mindoro, I.....	1:20,000			
4314	Northern part of Busuanga.....	1:100,000	31×42	1919	.75		Buruncan Point to Pocamil Bay; Mindoro, I.....	1:40,000			
4315	Palawan to Culion Island, including Limapacan Strait.....	1:100,000	32×41	1917	.75	4340	Mangarin and Pandarochan Bays; Mindoro, I.....	1:40,000	26×30	1911	.50
4316	Northwest coast of Palawan, Malampaya Sound to St. Paul Bay.....	1:100,000	31×43	1905	.75	4342	Halsey Harbor and Dicabaito Anchorage; Culion, I.....	1:20,000	23×32	1921	.50
4317	Northeast coast of Palawan, Shark Fin Bay to Flechas Point; Palawan, I.....	1:100,000	31×44	1918	.75		Dicabaito Anchorage.....	1:20,000			
4319	Green Island Bay and vicinity.....	1:100,000	31×41	1920	.75	4343	Puerto Princesa; Palawan, I.....	1:40,000	23×29	1920	.25
	Pasoc Channel, Green, I.....		1:20,000			4344	Port Galera and Varadero Bay; Mindoro, I.....	1:10,000	29×35	1910	.75
4321	Bold Point to Malanao Island.....	1:100,000	31×43	1920	.75	4346	Harbors of Palawan Island.....	26×30	1920	.50	
4323	North Balabac Strait and vicinity.....	1:100,000	32×42	1921	.75		Bacuit, northwest coast.....	1:15,000			
4334	Anchorages East Coast of Palawan.....		27×29	1921	.75		Ulugan Bay, west coast.....	1:30,000			
	Honda Bay.....	1:40,000					Malanut and Nakoda Bays, west coast.....	1:30,000			
	Malanao Anchorage.....	1:40,000				4347	Culasian Bay, west coast.....	1:20,000			
	Panacan Anchorage.....	1:40,000					Harbors of Balabac Island.....	23×28	1920	.25	
4335	Harbors on the north coast of Busuanga.....		18×23	1920	.25		Clarendon Bay, south coast.....	1:15,000			
	Minuit Anchorage.....	1:20,000					Calandorang Bay, east coast.....	1:15,000			
	Illultuk Bay.....	1:20,000					Dalawan Bay, east coast.....	1:20,000			
	Port Calton.....	1:20,000				4348	Port Ciego, north coast.....	1:40,000			
	Minangas Bay.....	1:20,000					Cagayan Sulu and adjacent islands.....	1:75,000	19×37	1905	.50
4336	Anchorages in Cuyo Islands.....		29×34	1918	.50	4349	Lapunlapun Anchorage.....	1:15,000			
	Tagauayan Islands.....	1:10,000					Malampaya Sound and approaches; Palawan, I.....	1:50,000	25×38	1908	.50
	Cuyo Anchorage and Bisucay Channel.....	1:10,000				4350	Western entrance to Coron Bay; Calamian Group.....	1:50,000	30×39	1919	.75
4337	Anchorages west and south of Mindoro; Mindoro, I.....		28×36	1916	.75	4351	Coron Bay; Calamian Group.....	1:50,000	33×41	1916	.75
	Apo Reef.....	1:20,000					Culion Landing.....	1:2,000			
	Sablayan Anchorage and Pandan Bay.....	1:20,000				4355	Harbors on Dumaran Island.....	1:20,000	33×38	1920	.75
	Scmirara Anchorage.....	1:20,000					Dumaran Bay.....	1:20,000			
4338	Lubang Islands.....	1:60,000	28×38	1914	.75		4410 to 4453 (see p. 11).				
	Golo Pass.....	1:20,000					4511 to 4651 (see p. 13).				



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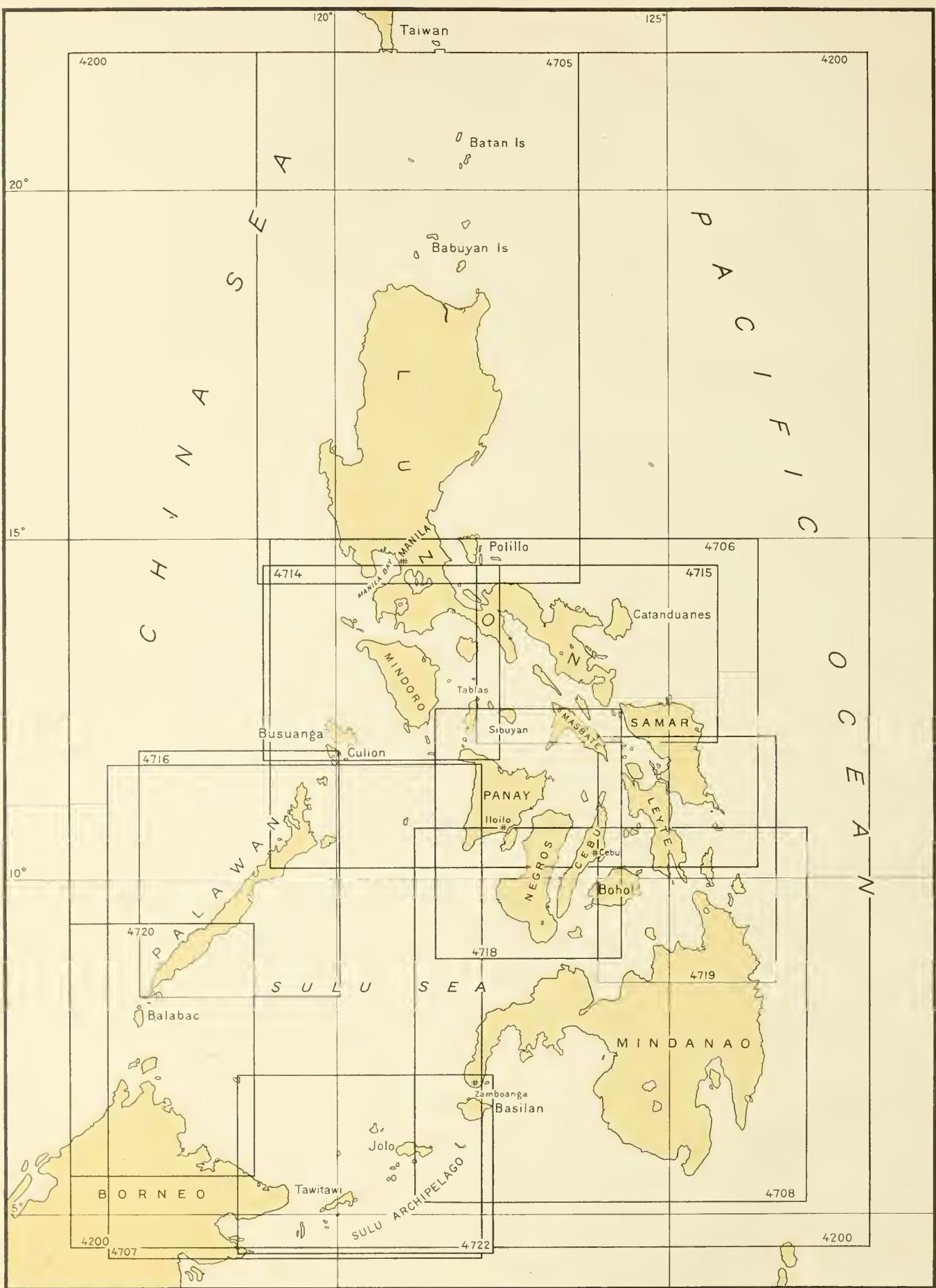
CHARTS OF THE PHILIPPINE ISLANDS—CONTINUED.

Cat. No.	TITLE.	Scale.	Size of border (inches).	Date of last edition.	Price.	Cat. No.	TITLE.	Scale.	Size of border (inches).	Date of last edition.	Price.										
COAST AND HARBOR CHARTS—Continued.																					
4218 to 4272 (see p. 7). 4305 to 4339 (see p. 9).																					
4405	Visayan Sea.....	1:200,000	28×41	1914	\$0.75	4454	COAST AND HARBOR CHARTS—Continued.														
4410	Tablas Island and vicinity.....	1:100,000	28×38	1913	.75		Harbors on Burias and Ticao Islands and Ragay Gulf.....		31×33	1920	\$1.75										
4411	Sibuyan and Romblon Islands	1:100,000	29×39	1914	.75		Port Pusgo, Ragay Gulf; Luzon, I.....	1:30,000													
4412	Western Masbate.....	1:100,000	30×40	1917	.75		Pasacao Anchorage, Ragay Gulf; Luzon, I.....	1:20,000													
4413	Northern Panay, Sigat Point to Bulacau Point.....	1:100,000	30×12	1919	.75		Port Busin, north coast; Burias, I.....	1:20,000													
	Capiz Bay.....		1:30,000				Port Busainga, northeast coast; Burias, I.....	1:15,000													
	Port Batan.....		1:30,000				Port Boca Engaño, southeast coast; Burias, I.....	1:10,000													
4414	Northwestern Panay.....	1:100,000	32×40	1917	.75		Port San Miguel, northwest coast; Ticao, I.....	1:20,000													
4415	Southwestern Panay.....	1:100,000	30×40	1921	.75		Port San Jacinto, east coast; Ticao, I.....	1:20,000													
	San José De Buenavista		1:10,000				Taclogan Bay, east coast of Ticao, I.....	1:20,000													
4416	Iloilo and Guimaras Straits; Panay and Guimaras, Js.....	1:100,000	30×41	1919	.75		Harbors on the coast of Masbate.														
4417	Northeastern Panay and adjacent islands.....	1:100,000	31×42	1911	.75	4455	Port Barrera, north coast.....	1:30,000													
4418	Southeast Masbate.....	1:100,000	30×41	1915	.75		Masbate Harbor, northeast coast.....	1:20,000													
4420	Callbayog to Tacloban; Samar and Leyte, Is.....	1:100,000	29×42	1914	.75		Port Cataingan, east coast.....	1:30,000													
	Catbalogan Harbor.....		1:35,000				Nin Bay, west coast.....	1:30,000													
4421	Catarman to Oras Bay; Samar, I.....	1:100,000	30×42	1908	.75	4456	Harbors of Samar and Leyte.														
	Helm Harbor and San Ramon Bay.....		1:25,000				Jibatan River, west coast; Samar, I.....	1:50,000													
4422	Oras Bay to Matarinao Bay; Samar, I.....	1:100,000	29×41	1908	.75		Santo Niño Harbor; Santo Niño, I.....	1:5,000													
	Port Libas.....		1:30,000				Parasan Harbor; Daram, I.....	1:10,000													
	Port Borongan.....		1:30,000				Biliran Strait; Leyte and Biliran, Is.....	1:20,000													
	Llorente and vicinity.....		1:30,000				Port Palompon; Leyte, I.....	1:10,000													
4423	Southern part of Samar and San Pedro Bay.....	1:100,000	30×43	1910	.75	4463	Escalante Harbor and vicinity; Negros, I.....	1:20,000	30×41	1909	.75										
4424	Southeast coast of Leyte and Dinagat Island.....	1:100,000	31×41	1913	.75	4464	San Juanico Strait and Jana-batas Channel; Samar and Leyte, Is.....	1:30,000	31×40	1910	.75										
	Liloan Bay and Panaon Strait.....		1:10,000				Northern entrance to San Juanico Strait.....	1:10,000													
4425	Eastern Bohol and part of Leyte.....	1:100,000	31×41	1910	.75	4465	Harbors in Cebu.														
4426	Southwest coast of Leyte, Ormoc Bay to Maasin.....	1:100,000	30×41	1915	.75		Hagnaya Bay.....	1:30,000													
	Maasin.....		1:10,000				Tuburan.....	1:30,000													
4427	East coast of Cebu; Cebu, I.....	1:100,000	28×40	1910	.75		Balamban Bay.....	1:30,000													
4428	Northern part of Tañón Strait; Negros and Cebu, Is.....	1:100,000	29×40	1911	.75		Lambusan.....	1:30,000													
4429	Western Bohol; Bohol, I.....	1:100,000	30×44	1911	.75		Dumanjung Bay.....	1:20,000													
4430	Tañón Strait, southern part; Cebu and Negros, Is.....	1:100,000	31×42	1911	.75		Moalbual.....	1:20,000													
4431	Western Negros.....	1:100,000	31×36	1914	.75		Argao.....	1:25,000													
4432	Southwestern Negros.....	1:100,000	27×35	1913	.75		Bogo Bay.....	1:30,000													
4447	Cebu Harbor and approaches; Cebu, I.....	1:30,000	28×35	1910	.50		Carear Bay.....	1:15,000													
4448	Cebu Anchorage; Iloilo Strait and Harbor; Panay, I.....	1:10,000					Port Carmen.....	1:15,000													
	Iloilo River.....		1:50,000	24×32	1919	4466	Barili Bay.....	1:15,000													
	Santa Ana Bay.....		1:10,000				Harbors in Negros and vicinity.														
4449	Port Palapag and Laoang Bay; Samar, I.....	1:20,000					Dumaguete; Negros, I.....	32×37	1911	.75											
4453	Harbors of Marinduque Island and vicinity.....	1:40,000	32×33	1911	.75		Himuguan River; Negros, I.....	1:10,000													
	Port Balanacan, northwest coast; Marinduque, I.....		29×36	1913	.75		Calagegal Bay; Negros, I.....	1:15,000													
	Santa Cruz Harbor and Masagasa Bay, northeast coast; Marinduque, I.....		1:10,000				Port Canoan; Siquijor, I.....	1:10,000													
	Torrijos Bay, east coast; Marinduque, I.....		1:30,000				Port Bombonon; Negros, I.....	1:5,000													
	Port Concepcion; Maestro de Campo, Is.....		1:5,000			4467	Refugio Pass; Negros, I.....	1:10,000													
	Romblon Harbor, west coast; Romblon, I.....		1:10,000				Bais; Negros, I.....	1:35,000													
	4603 to 4647 (see p. 13).						Port Siyt; Negros, I.....	1:30,000													



CHARTS OF THE PHILIPPINE ISLANDS—CONTINUED.

Cat. No.	TITLE.	Scale.	Size of border (inches).	Date of last edition.	Price.	Cat. No.	TITLE.	Scale.	Size of border (inches).	Date of last edition.	Price.
	COAST AND HARBOR CHARTS—Continued.					4639	COAST AND HARBOR CHARTS—Continued.				
	4312 to 4336 (see p. 9). 4405 to 4466 (see p. 11).						Anchorage in Iligan Bay and vicinity; Mindanao, I.....		29×35	1911	\$0.75
4511	Basilan Strait; Mindanao and Basilan, Is.....	1:100,000	30×43	1921	\$0.75		Plaridel and Inamuecan Bay	1:25,000			
4512	Samales Group, Sulu Archipelago.....	1:100,000	30×43	1906	.75		Dapitan and Dipolog.....	1:40,000			
	Ton Sandungun Channel.....	1:25,000					Canauayor Anchorage.....	1:20,000			
4514	Tawitawi Group, Sulu Archipelago.....	1:100,000	31×41	1906	.75		Jimenez.....	1:20,000			
	Port Dos Amigos.....	1:15,000					Iligan and Overton Anchorages and Quinalang Cove.....	1:40,000			
	Port Bongao.....	1:25,000					Oroqueta.....	1:20,000			
	Simanale Bay and Channel.....	1:25,000					Port Mambajao.....	1:10,000			
4541	Anchorages, Jolo Island; Jolo, I.....		26×37	1912	.50	4640	Cagayan Anchorage.....	1:20,000			
	Jolo Anchorage, north coast.....	1:10,000					Port Misamis; Mindanao, I.....	1:60,000	25×33	1908	.50
	Dalrymple Harbor, north coast.....	1:20,000					Port Misamis.....	1:20,000			
	Majabun Bay, south coast.....	1:40,000					Murcielagos Bay; Mindanao, I.....				
4542	Jolo Island and vicinity.....	1:189,000	21×25	1911	.25			1:30,000	19×23	1901	.25
4543	Isabela Channel and approaches; Basilan, I.....	1:25,000	25×33	1910	.50	4645	Vicinity of Zamboanga Masinloc Anchorage to Caldera Bay; Mindanao, I.....				
4544	Siasi and Lapac Islands.....	1:30,000	31×40	1906	.75		Agusan River entrance; Mindanao, I.....	1:20,000	21×37	1912	.50
4603	Surigao Strait and vicinity; Mindanao and Leyte, Is.....	1:200,000	34×44	1913	.75	4647	Nasipit Harbor; Mindanao, I.....	1:15,000			
4604	Iligan Bay and vicinity.....	1:200,000	31×41	1911	.75		Malalag Bay, south coast; Mindanao, I.....	1:20,000	23×25	1907	.25
4606	Port Sibulan to Polloc Harbor; Mindanao, I.....	1:200,000	28×37	1915	.75	4651	Harbors on the south and west coasts of Mindanao.....		28×32	1913	.50
4607	Cotabato to Sarangani Bay; Mindanao, I.....	1:200,000	31×41	1917	.75		Dumanquilas Bay; Mindanao, I.....	1:75,000			
4617	Sibuguey Bay; Mindanao, I..	1:100,000	30×40	1909	.75		Taba Bay; Mindanao, I.....	1:30,000			
4623	Southern part of Davao Gulf; Mindanao, I.....	1:100,000	32×41	1913	.75	4652	Port Santa Maria; Mindanao, I.....	1:40,000			
4624	Northern part of Davao Gulf; Mindanao, I.....	1:100,000	32×39	1909	.75		Pangabutan and Cauit Bay; Mindanao, I.....	1:40,000			
	Davao.....	1:20,000					Sibuco Bay; Mindanao, I..	1:100,000			
	Malipano Anchorage.....	1:20,000					Harbors in Illana Bay and vicinity; Mindanao, I.....		31×33	1912	.75
4625	Cape San Augustin to Mayo Bay; Mindanao, I.....	1:100,000	26×40	1914	.75		Port Sibulan.....	1:60,000			
	Balete Bay.....	1:20,000					Port Baras.....	1:20,000			
4626	Mayo Bay to Cateel Bay; Mindanao, I.....	1:100,000	30×41	1915	.75		Limbud Cove.....	1:15,000			
4627	Cateel Bay to Jobo Point; Mindanao, I.....	1:100,000	29×40	1915	.75		Port Sambulauan.....	1:30,000			
	Lamon Anchorage.....	1:20,000					Pagadian Bay.....	1:50,000			
	Catarman Anchorage.....	1:20,000					Maligay Bay.....	1:50,000			
4628	Jobo Point to Tugas Point; Mindanao, I.....	1:100,000	39×40	1913	.75	4653	Harbors on the south coast of Mindanao, I.....		25×34	1919	.50
	Bitaugan Bay.....	1:30,000					Lavigan Anchorage; Mindanao, I.....	1:5,000			
4629	Hinatuan Passage; Mindanao, I.....	1:100,000	30×38	1913	.75		Port Patuco, Sarangani, I..	1:10,000			
	Surigao.....	1:10,000					Port Bolay, Sarangani, I..	1:5,000			
4638	Harbors on Dinagat, Siargao and Bucas Islands.....		30×37	1913	.75	4654	Port Tumanao, west coast; Sarangani, I.....	1:15,000			
	Dapa Channel.....	1:35,000					Canalasan Cove; Mindanao, I.....	1:20,000			
	Gaas Bay and Inlet.....	1:30,000					Basiuang Bay; Mindanao, I.....	1:20,000			
	Dinagat.....	1:20,000					Port Lebak; Mindanao, I..	1:20,000			
	Sohutan Bay and Inlet.....	1:20,000					Tuna Bay; Mindanao, I..	1:20,000			
	San Roque.....	1:25,000					Port Banga; Mindanao, I..	1:20,000			
	Port Pilar.....	1:30,000					Mindanao River Delta and Polloc Harbor; Mindanao, I.....	1:50,000	34×41	1917	.75
	Malinao Inlet.....	1:25,000					Parang and Polloc anchorages.....	1:20,000			
4655							Cotabato entrance, Mindanao River.....	1:20,000			
							Mindanao River, upper part; Mindanao, I.....	1:50,000	34×42	1909	.75
							Continuation of Buluan and Alip Rivers.....	1:50,000			



CHARTS OF THE PHILIPPINE ISLANDS--CONTINUED.

Cat. No.	TITLE.	Scale, ap- proximate.	Size of border (inches).	Date of last edition.	Price.	Cat. No.	TITLE.	Scale, ap- proximate.	Size of border (inches).	Date of last edition.	Price.
SAILING CHART AND GENERAL CHARTS OF THE COAST.											
4200	Philippine Islands.....	1:1,600,000	33×49	1918	\$0.75	4715	Southeastern Luzon and parts of Masbate and Samar.....	1:400,000	30×40	1917	\$0.75
4705	Manila Bay to Taiwan.....	1:800,000	28×44	1919	.75	4716	Palawan.....	1:100,000	34×40	1919	.75
4706	Philippine Islands, central part.....	1:800,000	27×40	1921	.75	4718	Panay, Negros and Cebu, with parts of Bohol and Masbate.	1:400,000	31×41	1917	.75
4707	Philippine Islands, southwestern part.....	1:800,000	31×41	1920	.75	4719	Surigao Strait and Leyte, with parts of Samar and Mindanao.....	1:400,000	30×40	1915	.75
4708	Philippine Islands, southeastern part.....	1:800,000	31×33	1917	.75	4720	Balabac Strait and approaches	1:400,000	31×41	1919	.75
4714	Southwestern Luzon and Mindoro.....	1:395,000	32×39	1920	.75	4722	Sulu Archipelago.....	1:400,000	30×42	1911	.75

TABLE OF SCALE EQUIVALENTS.

The following table gives the lengths of nautical and statute miles on the several scales named, these scales being the proportionate size of the chart to nature. That is, in the scale 1:1,200 the chart is 1:1,200 part of the actual linear dimensions in nature (or 100 feet to the inch), equal to 60.8 inches to a nautical mile, and 52.8 inches to a statute mile, and so on.

A nautical mile is a minute of an average great circle of the earth, and its length is 6,080 feet, or 1,853.2 meters. A statute mile is 5,280 feet, or 1,609.3 meters.

Scale.	Nautical mile.		Statute mile.	
	Inches.	Centimeters.	Inches.	Centimeters.
1:1,200	60.803	154.44	52.800	134.11
1:2,400	30.401	77.22	26.400	67.06
1:4,800	15.201	38.61	13.200	33.53
1:5,000	14.593	37.06	12.672	32.19
1:10,000	7.296	18.53	6.336	16.09
1:15,000	4.864	12.36	4.224	10.73
1:20,000	3.648	9.27	3.168	8.05
1:30,000	2.432	6.18	2.112	5.36
1:40,000	1.824	4.63	1.584	4.02
1:50,000	1.450	3.71	1.207	3.22
1:60,000	1.216	3.09	1.056	2.68
1:80,000	.912	2.32	.792	2.01
1:100,000	.730	1.85	.634	1.61
1:200,000	.365	.93	.317	.80
1:400,000	.182	.46	.158	.40
1:1,000,000	.073	.18	.063	.16
1:1,200,000	.061	.15	.053	.13

1 meter=39.37 inches; 1 centimeter=0.3937 inch; 1 inch=2.54 centimeters.



